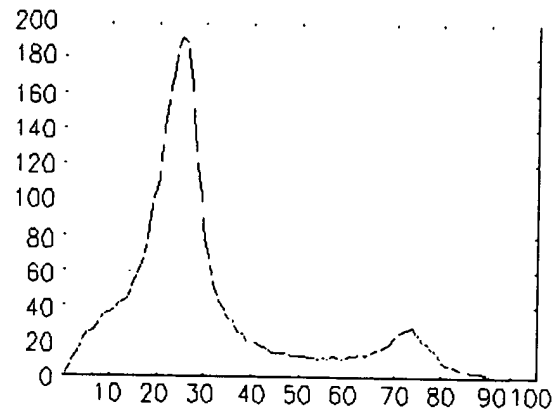


FIG. 1



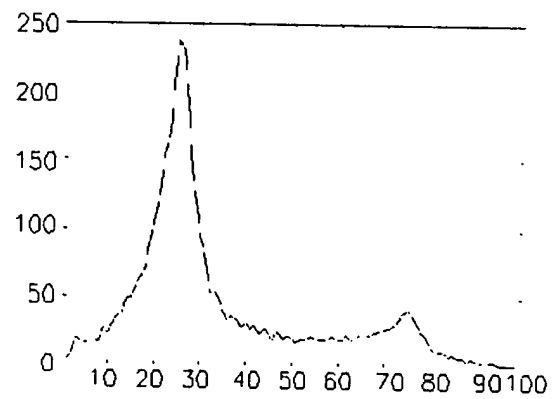
(a) 'android' MODEL



(b) SHAPE SPECTRUM OF 'android' MODEL



(c) 'crocodile' MODEL



(d) SHAPE SPECTRUM OF 'crocodile' MODEL

FIG. 2

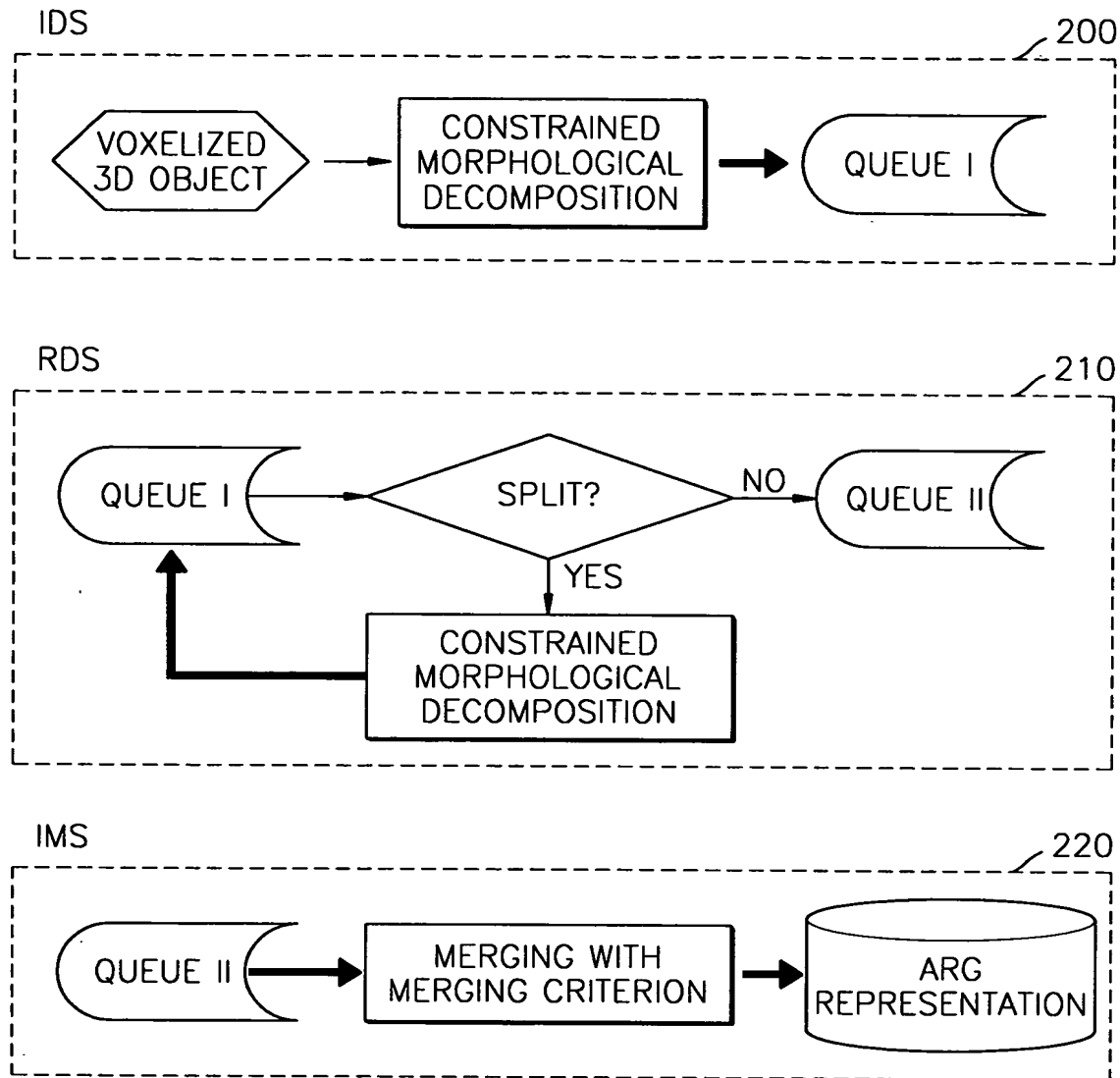


FIG. 3



(a)



(b)



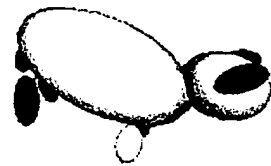
(c)



(d)

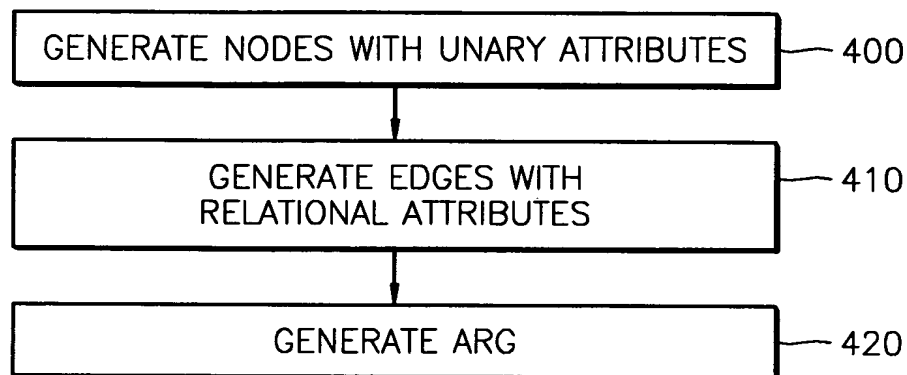


(e)



(f)

**FIG. 4**



**FIG. 5**

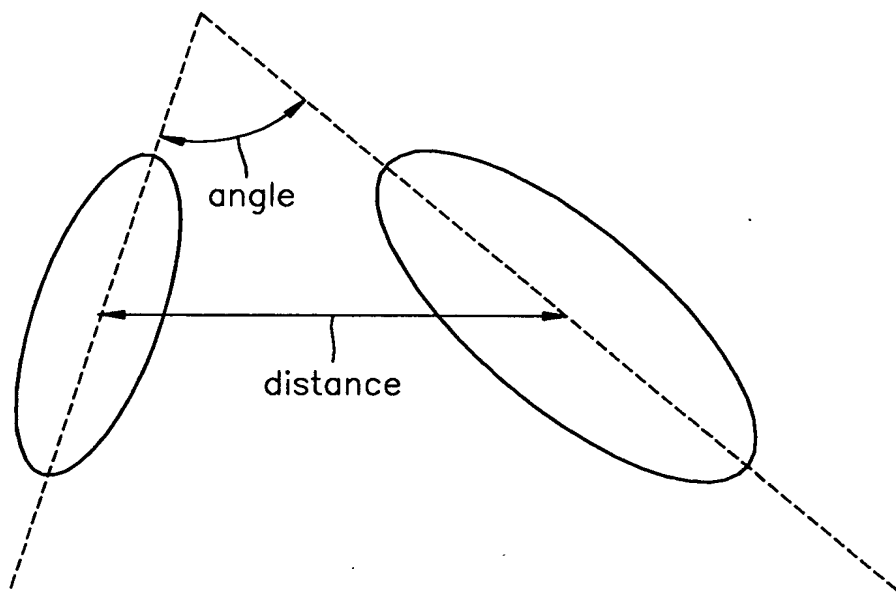


FIG. 6

P3DS {	Number of bits	Mnemonics
NNodes	5	uimsbf
for (i=0; i<NNodes-1; i++) {		
for (j=i+1 ; j<NNodes; j++) {		
IsAdjacent[i][j]	1	bslbf
}		
}		
for (i=0; i<NNodes; i++) {		
Volume[i]	8	uimsbf
Center[i][3]	8	uimsbf
Transform[i][6]	8	uimsbf
Variance[i][3]	8	uimsbf
Convexity[i]	8	uimsbf
}		
}		

FIG. 7

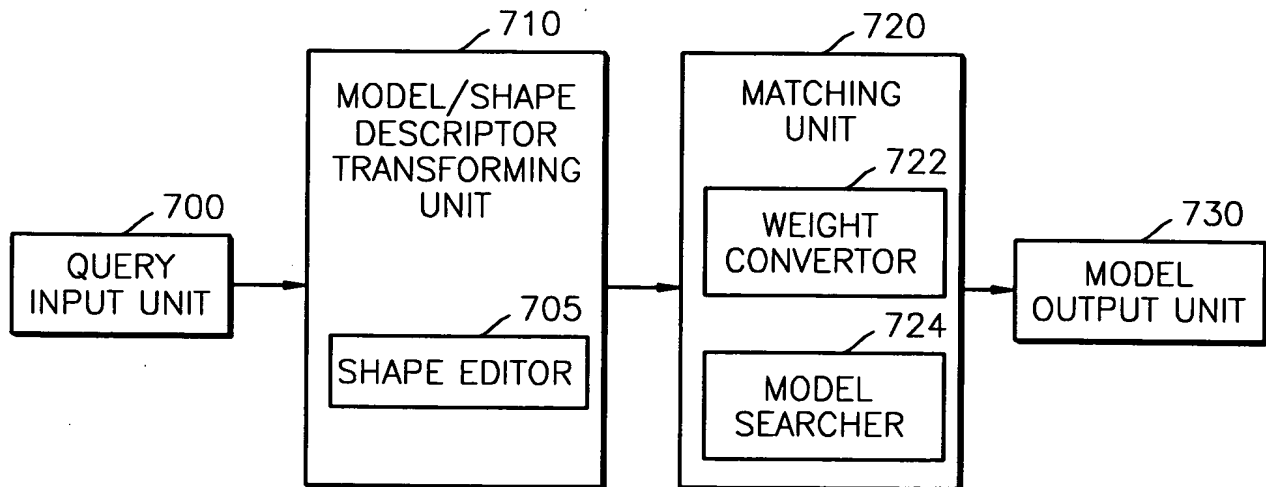


FIG. 8

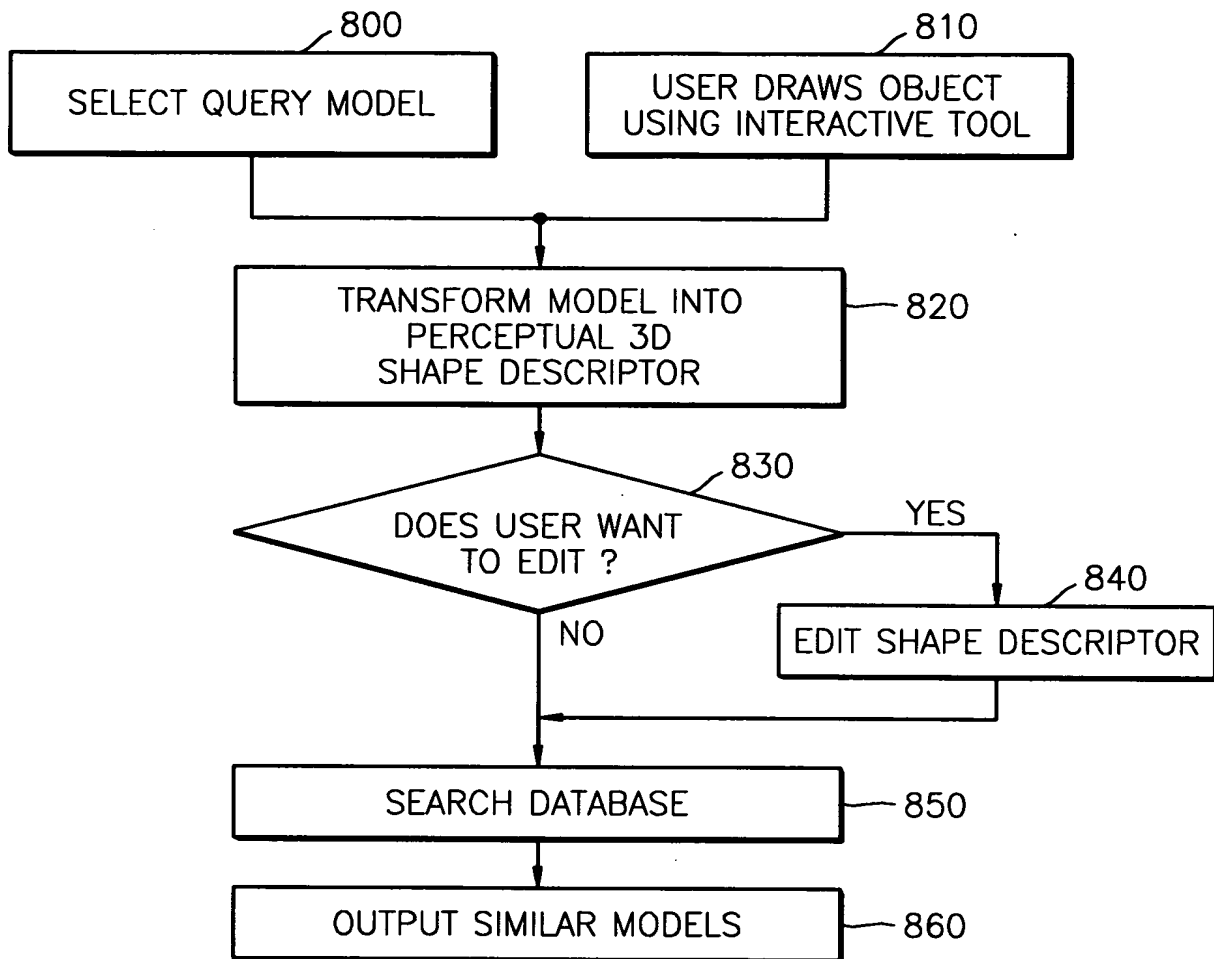


FIG. 9

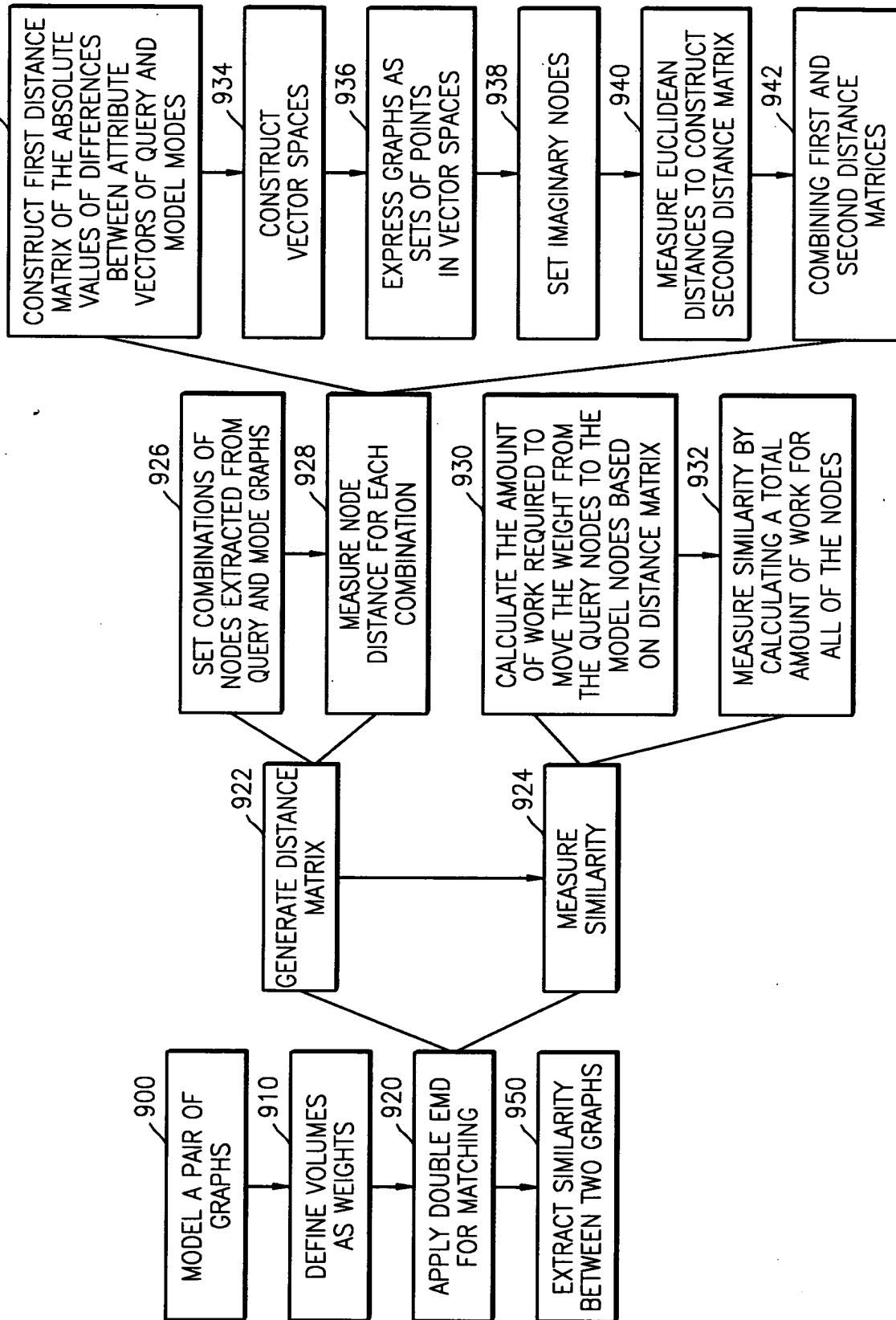


FIG. 10

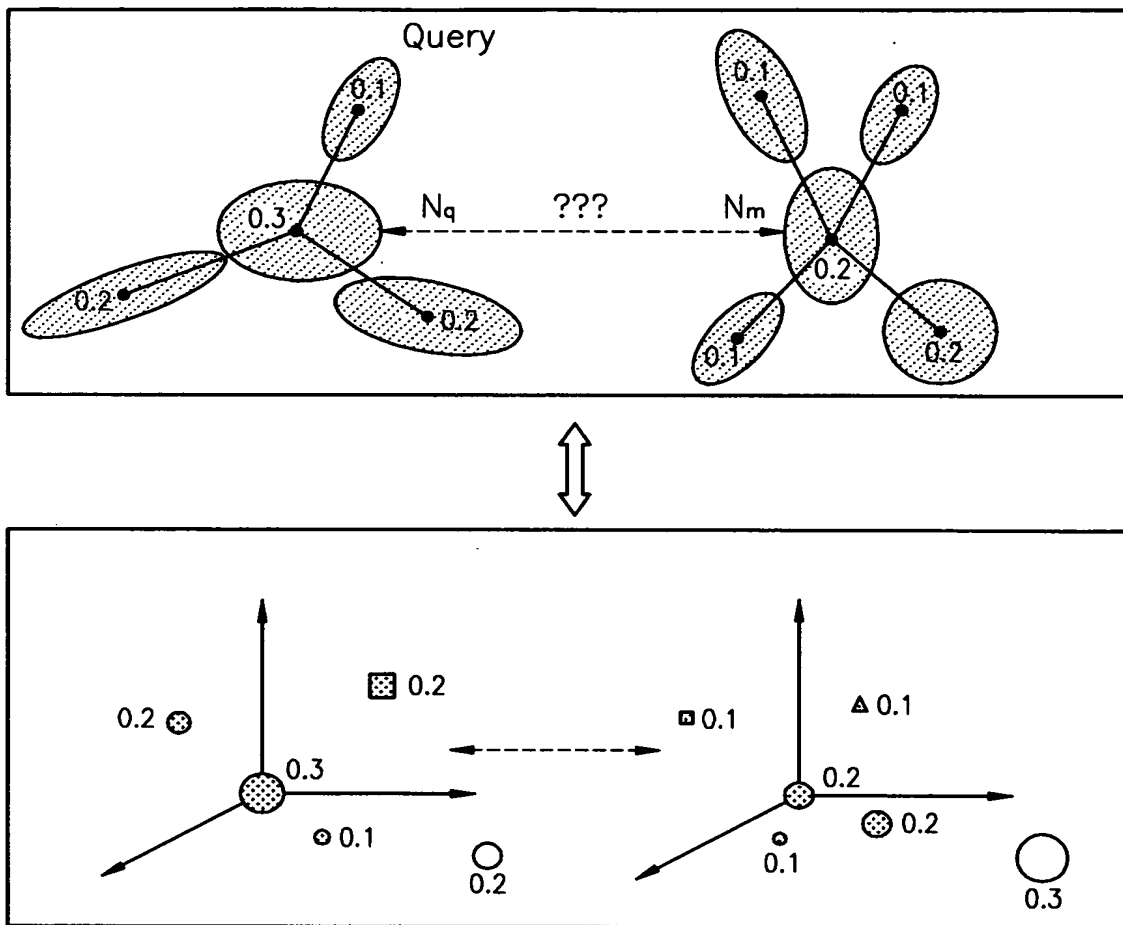


FIG. 11

	0.2	0.1	0.1	0.1	0.2	0.3
0.2		.	.	.	.	d
0.2		.	.	.	.	d
0.1		.	.	.	.	d
0.3		.	.	.	0	d
0.2		d	d	d	d	0



FIG. 12

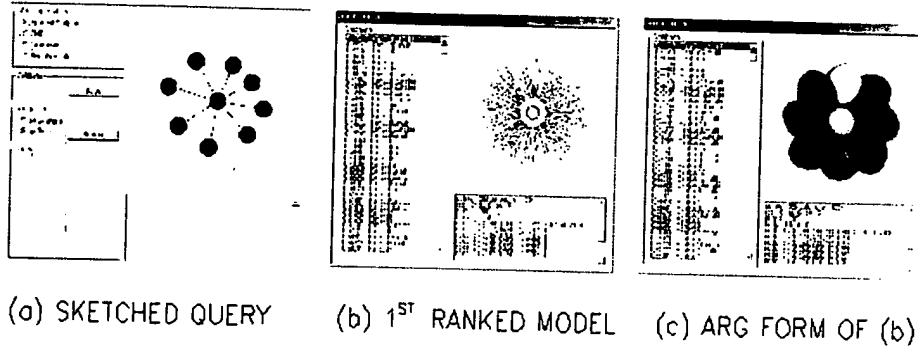
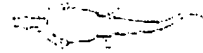


FIG. 13



(a) 'android' MODEL



(b) 'crocodile' MODEL



(c) 'hilo' MODEL



(b) 'dinopet' MODEL



(e) 'p51\_mustang' MODEL



(f) 'triceratops' MODEL



FIG. 14

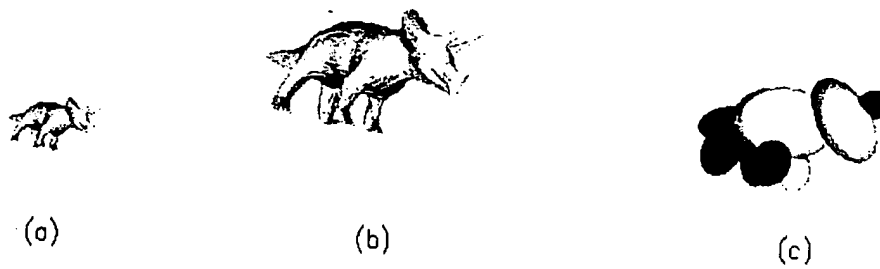


FIG. 15

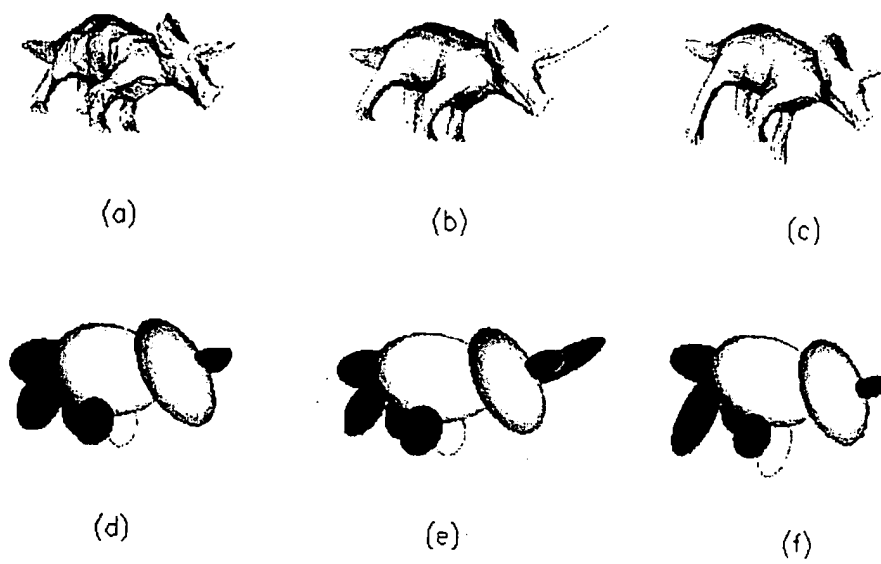


FIG. 16

Category		P3DS		Shape3D	
		BEP	ANMRR	BEP	ANMRR
<i>Aircraft / multi_fuselages / 3_bodies</i>	30	0.63667	0.27326	0.32111	0.51349
<i>Animal / arthropod / with_wings / bee</i>	30	1.00000	0.00000	0.55556	0.31395
<i>Animal / humanoid / sitting</i>	60	0.80972	0.17468	0.55556	0.35739
<i>Automobile / tank / equipvaried</i>	30	1.00000	0.00007	0.53222	0.32496
<i>Furniture / chair / 4_legged</i>	30	0.58556	0.32306	0.34333	0.57811
<i>Furniture / chair / with_a_post</i>	30	0.68333	0.24401	0.25000	0.60770
<i>Letter / O</i>	15	0.58667	0.29990	0.32000	0.51549
<i>Plant / flower / 20_petaled</i>	30	0.66111	0.23978	0.49333	0.38556
<i>Ship / single_mast / romanship</i>	30	0.93444	0.05263	0.33778	0.49105
<i>Simplex / cellular_phone</i>	51	0.85659	0.11556	0.36332	0.47692
<b>Total</b>	<b>336</b>	<b>0.79197</b>	<b>0.16327</b>	<b>0.42162</b>	<b>0.44626</b>